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Siemens Corporation Intellectual Property Department 170 Wood Avenue South Iselin, NJ 08830				
			EXAMINER	
			TERMANINI, SAMIR	
			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/666,227

Applicant(s)

POERNER ET AL.

Examiner

Samir Termanini

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 18 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/2/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

BACKGROUND

1. This FINAL Office Action is responsive to the following communications:
Amendment filed on 5/29/2007.

2. Claims 1-39 are pending in this case. Applicant has amended all of the pending independent claims: 1, and 33-44.

3. The previous rejection of claims 1-39 made under 35 U.S.C. §102(b) and 35 U.S.C. §103(a) are withdrawn as being rendered moot by applicants Amendment filed on 5/29/2007.

CLAIM REJECTIONS - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Kodosky et al.* (U.S. PG-Pub. 2003/0184580, hereinafter *Kodosky*) in view of *Leshem et al.* (U.S. Pat. No. 5,870,559, hereinafter *Leshem*).

As to independent claim 1, *Kodosky* describe, in detail, a method for configuring HMI user screen navigation. For clarity, the Examiner is reproducing *Kodosky's* figures 20A and 24A below:

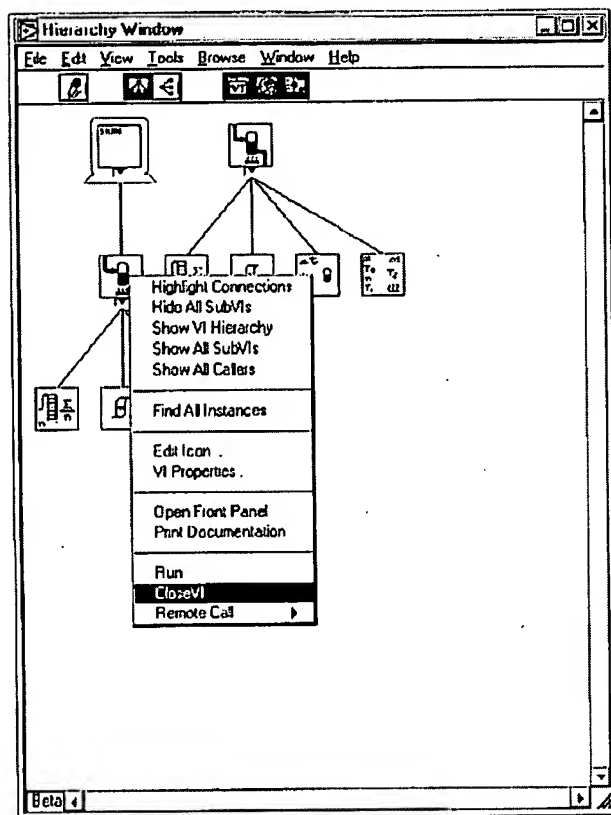


Fig. 20A

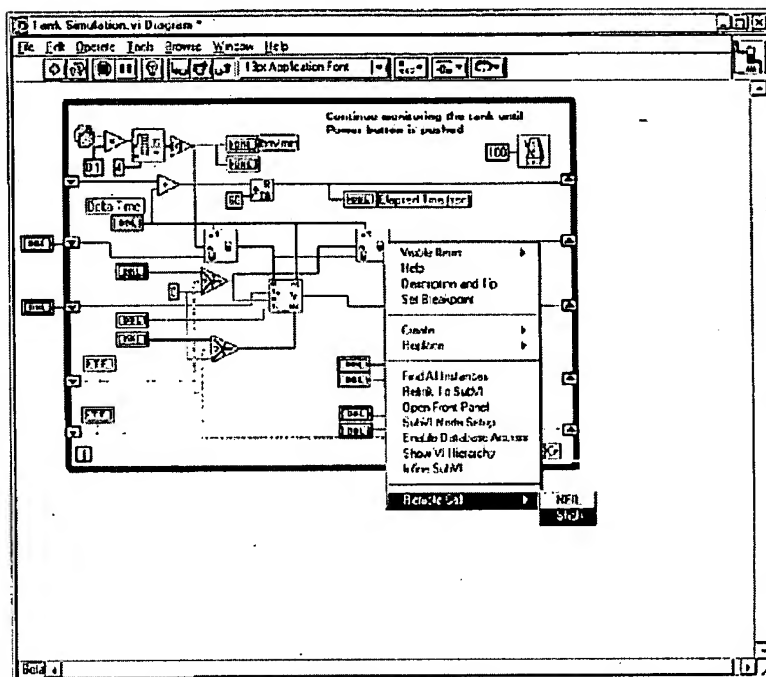


Fig. 24A

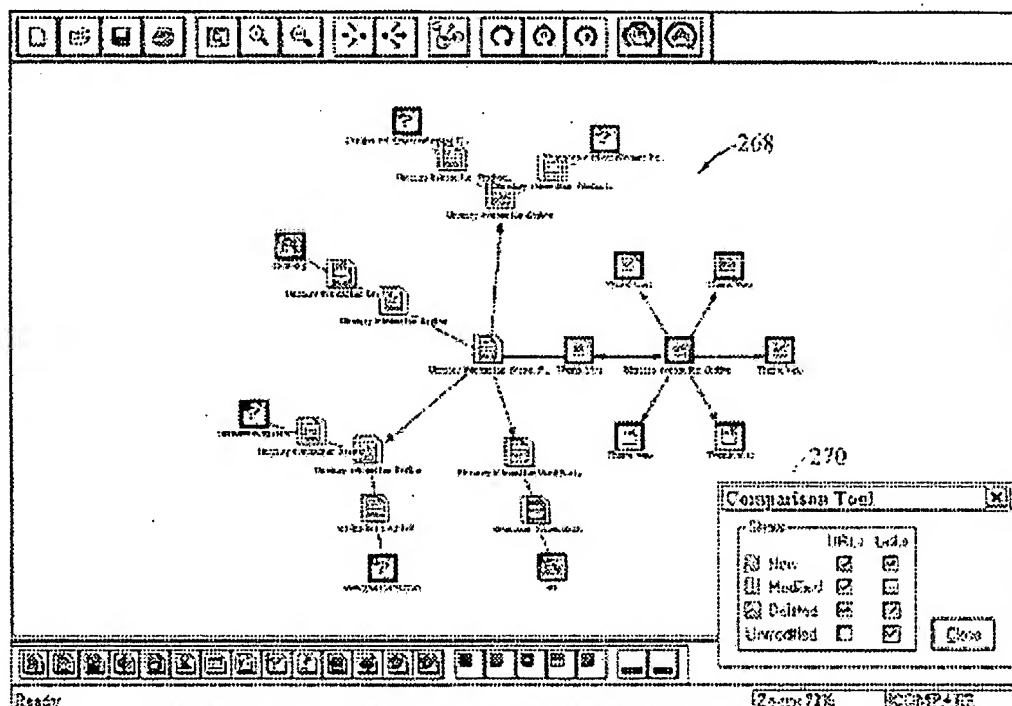
Kodosky illustrate providing an HMI screen navigation editor to a user ("...The system may also include a system editor 732. The system editor may be used for creating a configuration diagram 712, also referred to as a system panel. In the present application, the terms 'system panel' and 'configuration diagram' are used interchangeably. The configuration diagram 712 may include a plurality of nodes or icons 714 which represent items 718 in a system, such as devices, machines, programs,

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applications, projects or other elements in the configuration diagram 712. The configuration diagram 712 may also illustrate the relationship between nodes using connections or links 716 as described herein. ..., " para. [0148]); via the HMI screen navigation editor ("...automatically appear in the block diagram for further navigation or positioning by the user....," para. [0375]), enabling the user to create a collection comprising a linked hierarchically organized plurality of HMI screen nodes ("...enabling a user to more easily specify or create distributed systems and/or applications utilizing a configuration diagram....," para. [0001]); responsive to a detected collision between a parent node of said linked hierarchically organized plurality of HMI screen nodes and a first child node of a plurality of child nodes of said parent node ("...The "drag and drop" method may comprise the user selecting the first program icon with a pointing device (e.g., a mouse) and dragging the first program icon on the display to be on top of or proximate to the first device icon....," para. [0185]) automatically adjusting a nodes position ("...The connections between device icons that are automatically displayed may be displayed with an appearance indicating the type of detected connection....," para. [0016]). Additionally, *Kodosky* clearly teaches rendering the collection to the user (e.g., *Kodosky's* figures 20A and 24A above)

Kodosky differs from claim 1 in two regards. First, *Kodosky* does not specifically teach that the adjustment of the position of a parent node is done in a recursive manner. Second, *Kodosky* is silent as to the adjustment being conducted for all of the parents children.

Leshem teaches automatically recursively adjusting the position nodes in a HMI hierarchy editor. *Leshem*'s Fig. 24 is illustrative of this editor, and for clearness the Examiner is reproducing it below:



Leshem disclose automatically recursively adjusting a position of a parent node with respect to its children:

A recursive layout method is then applied which uses the parent-child node relationships, as such relationships exist within the tree, to spatially position the nodes (represented as respective icons within the map) on the display screen such that children nodes are positioned around and connected to their respective immediate parents. (This layout method can also be used to display other types of hierarchical data structures, such as the tree structure of a conventional file system.) The result is a

map which comprises a hierarchical arrangement of parentchild child node (icon) clusters in which parent-child relationships are immediately apparent.

Column 2, at lines 35-46. It is important to note that, "...This process is repeated for each parent node..."(Column 13, at lines 44-45) as it "recursively positions the nodes on the display screen" (Column 13, at lines 65-67).

It would have been obvious to one ordinary skill in the relevant field at the time the invention was made to recursively adjusting a position of a parent node as taught in *Leshem* with the HMI editor of *Kodosky* because *Kodosky* expressly suggests that it is advantageously suitable to use its HMI editor with web based systems like *Leshem* ("...web service based interaction..." para. [0163]). Furthermore, because the use of web service based interaction was both enumerated and predictable, a person of ordinary skill in art would have had good reason to pursue it therefor.

As to dependent claim 2, which depends from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: receiving from the user a specification ("...configured ...," para. [0234]), of an HMI root screen node ("...402 at the top level ...," para. [0237]).

As to dependent claim 3, which depends from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: receiving from the user a specification of an HMI child screen node ("... For example, the user may use a pointing device (e.g., a mouse), and may possibly use a "wiring tool" icon on the display, to connect a first device icon to a second device icon. This may cause a connection, e.g., a

wire, to appear between the device icons to indicate a coupling relationship between the two (or more) device icons....," para. [0017]), the HMI child screen node a descendent of an HMI root screen node ("...This may cause a connection, e.g., a wire, to appear between the device icons to indicate a coupling relationship between the two (or more) device icons....," para. [0017]).

As to dependent claims 4 and 20, which depends from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: receiving from the user a specification of a relationship between two of the plurality of HMI screen nodes one being non familial ("...For example, the user can graphically modify (e.g., using a pointing device) the connection displayed between a first program and a second program so that the connection is displayed between the first program and a third program....," para. [0018]).

As to dependent claims 5 and 7, which depends from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: receiving from the user a specification of an organization or arrangement of the collection ("...In this embodiment, the configuration diagram is a specification of a desired system....," para. [0164]).

As to dependent claims 6 and 18, which depend from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: receiving from the user a specification or attribute of a hierarchy of the collection ("...For example, as the user drags and drops program icons (e.g., from the configuration diagram) on to various

device icons on the configuration diagram in step 208, the system may operate to display the updated relationship (e.g., hierarchy) of programs proximate to, e.g., underneath, the respective device icon to where they have been deployed..., para. [0186]).

As to dependent claim 8, *Kodosky* taught the limitations of claim 1 addressed above, *Kodosky* fails to clearly show receiving from the user a specification of a size the plurality of HMI screen nodes. *Leshem* discloses receiving from the user a specification of a size the plurality of HMI screen nodes ("...This is a recursive step which is applied on a node-by-node basis in order to determine (i) the display size of each node..., " col. 13, lines 35-36).

It would have been obvious to one ordinary skill in the relevant field at the time the invention was made to adapt the node size *Kodosky* with the method of *Leshem* because one skilled in the art, having common knowledge and common sense, would reasonably be expected to draw the inference from *Leshem* that size is the limiting factor in displaying nodes of trees on displays with limited screen space.

As to dependent claim 9, which depends from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: zooming a rendition of the plurality of HMI screen nodes ("...zoom in and out on portions of a site map..." col. 2, lines 15-20).

As to dependent claim 10, *Kodosky* taught the limitations of claim 1 addressed above. *Kodosky* fails to clearly show panning a rendition of the plurality of HMI screen nodes.

Leshem is taught panning a rendition of the plurality of HMI screen nodes ("...To display the Pan Window 86, the user selects the "Pan Window" menu option from the VIEW menu while viewing a map. Within the Pan Window, the user is presented with a display of the entire map 30, with a dashed box 87 indicating the portion of the map that corresponds to the zoomed-in screen display. As the user navigates the site map (using the scrolling controls 40, 42 and/or other navigational controls), the dashed box automatically moves along the map to track the zoomed-in screen display...." col. 17, lines 29-46).

It would have been obvious to one ordinary skill in the relevant field at the time the invention was made to adapt the view for panning is in *Leshem*, with the nodes of *Kodosky* because one skilled in the art, having common knowledge and common sense, would reasonably be expected to draw the inference from *Leshem* that viewing an item larger than a screen would require panning, as taught in *Leshem*.

As to dependent claim 11, which depends from claim 1, *Kodosky* further disclose(s): (Original) the method of claim 1, further comprising: collapsing a rendition of the plurality of HMI screen nodes ("...every individual tree is preferably collapsible....," para. [0410]).

As to dependent claim 12, which depends from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: expanding a rendition of the plurality of HMI screen nodes ("...expanded to show one or more device icons comprised in the configuration diagram....," para. [0387]).

As to independent claim 13, *** describe(s): the method of claim 1, further comprising: rotating a rendition of the plurality of HMI screen nodes (see the rotate buttons on top toolbar towards the right hand side, Fig. 6, *Kodosky*):

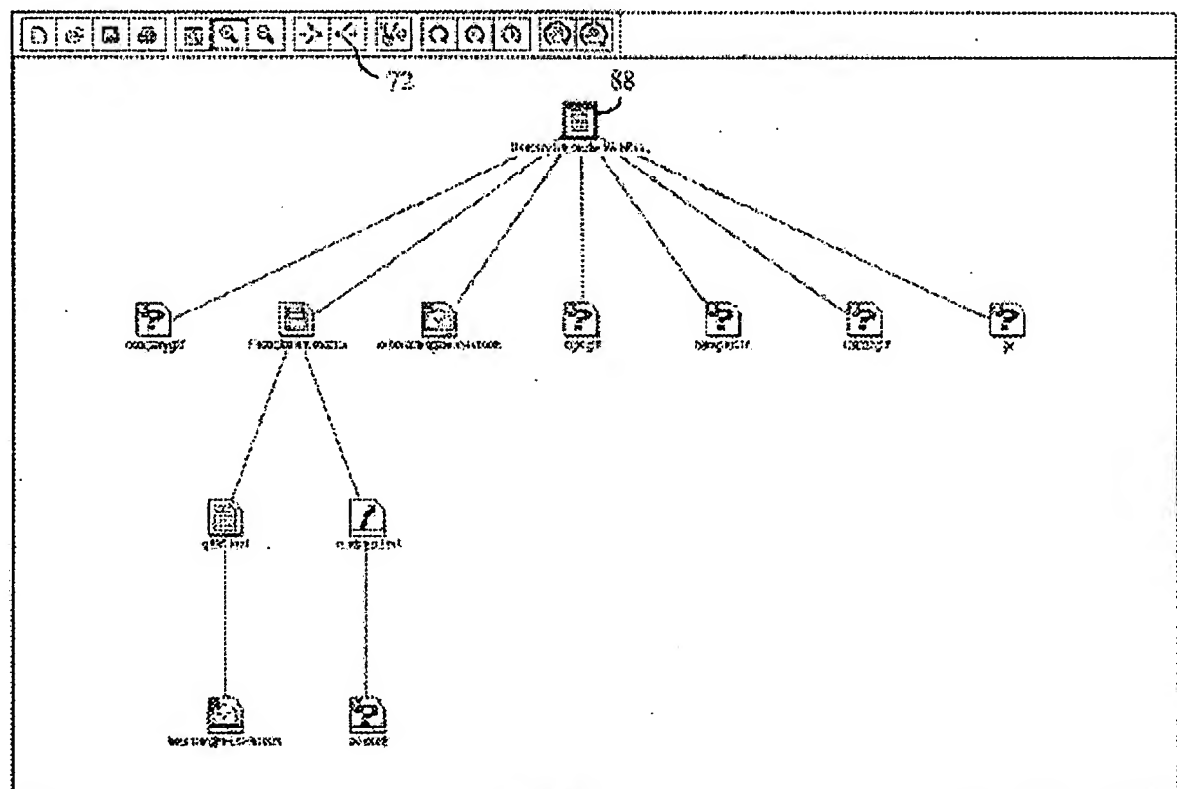


FIG. 6

As to dependent claim 14, which depends from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: rendering a portion ("... a portion or all of a configuration diagram....," para. [0016])(emphasis added) of the plurality of

HMI screen nodes ("...The configuration diagram may support various types of views, such as an entire system view, a subsystem view, a device view, a program view, etc. For example, the user can "drill down" in the configuration diagram to view a selected portion of the diagram, e.g., a selected subsystem of devices, a single device, the programs associated with a device, the data points associated with a device, the I/O channels associated with a device, etc. ..., " para. [0015])(emphasis added).

As to dependent claim 15, which depends from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: enabling the user to revise the collection ("...In step 208 the user may graphically configure program deployment and/or invocation using the configuration diagram. The user may graphically configure program deployment and/or invocation by providing graphical user input to the configuration diagram to associate (e.g., drag and drop), icons with other icons, change connections between icons, etc. ..., " para. [0175]).

As to dependent claim 16, which depends from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: enabling the user to revise at least one of the plurality of HMI screen nodes ("...The user may graphically configure ..., " para. [0175]).

As to dependent claim 17, which depends from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: receiving a user specification of an attribute of an HMI screen node ("...The user can also draw links between program icons to configure an invocation relationship between the respective programs. ..., " para. [0316]).

As to dependent claim 19, which depends from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: receiving from the user a specification of a link between two HMI screen nodes ("...For example, the displayed connections may have an appearance that varies according to one or more of color, size or shading to indicate the type of connection between the devices...", para. [0010]).

As to dependent claim 21, which depends from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: rendering a link between two HMI screen nodes ("...The connection that is displayed between two device icons ...," para. [0159]);

As to dependent claim 22, *Kodosky* further disclose(s): the method of claim 1, further comprising: rendering a link from a first HMI screen node to a second HMI screen node ("...relationship view ...," para. [0176]), the second HMI screen node non-familial to the first HMI screen node ("...the configuration...", para. [0176]).

As to dependent claims 23-24, which depend from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: receiving and rendering a navigation control comprising at least one HMI screen link ("...In large distributed systems, the configuration diagram (or system panel) can include a number of different device icons. In one embodiment, the user can select a particular device icon and cause this device icon to be the only device icon displayed on the screen. Alternatively, the user can select a device icon, causing the device icon to be displayed in a separate panel. ..., " para. [0411]).

As to dependent claim 25-32, which depends from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: receiving and rendering from the user a specification of a navigation button comprising an HMI screen link "...In one embodiment, the user can select a particular device icon and cause this device icon to be the only device icon displayed on the screen....," para. [0411]), activatable via a user-specified soft key ("...while pressing a key on the keyboard (e.g., the ALT key)...," para. [0231]).

As to independent claim 33, this claim differs from claim 1 only in that it is directed to a product defined by the process of claim 1. Accordingly, this claim is rejected for the same reasons set forth in the treatment of claim 1, above.

As to independent claim 34, this claim differs from claim 1 only in that it is directed to an apparatus for carrying out the process of claim 1. Accordingly, this claim is rejected for the same reasons set forth in the treatment of claim 1, above.

As to dependent claim 35, *Kodosky* teaches the limitations of claim 1, addressed above, further comprising: receiving from the user, a user-drawn relationship indication line between two of the plurality of HMI screen nodes ("... The configuration diagram may include connections ("connection icons") such as lines, that are displayed between the various device icons to show the interrelationship or coupling between the respective devices....," para. [0204]).

As to dependent claim 36, *Kodosky* teaches the limitations of claim 1, addressed above, further comprising: automatically determining an arrangement of the collection based upon a user specified upper limit on inter-generational spacing ("...As a result,

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all of the children 48 are positioned approximately equidistant from the parent 44, and are spaced apart from one another by substantially equal angular increments. Similar graphical representations to that of FIG. 3 are illustrated in FIG. I by node clusters 52, 54 and 56. As illustrated by these three clusters in FIG. 1, both (i) the size of parent icon and (ii) the distance from the parent to its children are proportional to the number of immediate children of the parent," col. 11, lines 35-46).

As to dependent claim 37, *Kodosky* teaches the limitations of claim 1, addressed above, further comprising: receiving a user specification of an attribute of an HMI screen node, the attribute adapted to change a background color of a screen ("Background Color", pp. 6-7; see also "The background color change" p. 10-9).

As to dependent claim 38-39, *Kodosky* teaches the limitations of claim 1, addressed above, further comprising: rendering a navigation control comprising a button adapted to display a previously viewed screen in a sequence of screens or adapted to display a previously viewed screen in a sequence of screens in a sequence of screens ("...the configuration diagram (and/or the preview window) may support multiple levels of undo/redo, thereby allowing the user to "back out" changes that have been made....," para. [0187]).

RESPONSE TO ARGUMENTS

6. Applicant's arguments, files on 5/9/2007, p.8, that the previous rejections under 35 U.S.C. §102(b) and 35 U.S.C. §103(a) being rendered moot by applicants

Amendment filed on 5/29/2007 have been fully considered and are persuasive..
Accordingly those rejections are withdrawn in view of thereof.

CONCLUSION

7. All prior art made of record in this Office Action or as cited on form PTO-892 notwithstanding being relied upon, is considered pertinent to applicant's disclosure. Therefore, Applicant is required under 37 CFR §1.111(c) to consider these references fully when responding to this Office Action.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Samir Termanini at telephone number is (571) 270-

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1047. The Examiner can normally be reached from 9 A.M. to 6 P.M., Monday through Friday.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Stephen S. Hong can be reached on (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



STEPHEN HONG
SUPERVISORY PATENT EXAMINER



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Art Unit 2178